

ABSTRACT

A blood vessel clip applicator preferably includes two twist pins at one end, between which a blood vessel is placed before occlusion. A magazine in the blood vessel clip applicator preferably holds a plurality of blood vessel clips and can be rotated independently from a grip assembly, whereby the twist pins can be rotated to compress a blood vessel held between them. A blood vessel clip is preferably placed on the blood vessel after it has been flattened.

A blood vessel clip preferably comprises spring quality material, and preferably has a head connected to a first leg and a second leg. The magazine preferably has a constricted region adjacent to an exit aperture. As the head enters the constricted region, the compressive force exerted on the head by the constricted region opens the blood vessel clip to an open position.

In an alternate embodiment, a plunger applies a blood vessel clip with a direct stroke. The plunger has a plurality of stepwise indentations used to restrain the blood vessel clips before application and for pushing them all forward substantially simultaneously during application.

In an alternate embodiment, a variety of blood vessel clips having different shapes, cross-sections and grooves are suitable for use with the blood vessel clip applicator. The alternate blood vessel clip preferably have two legs in a "V" configuration and a head connecting the two legs. The constricted region compresses the head of the blood vessel clip as it passes through the constricted region, thereby closing the clip onto the blood vessel. These alternate embodiments may comprise substantially annealed metal.